

Listing of Claims:

1. (Previously Presented) A method for selecting inverse discrete cosine transform (iDCT) algorithms, comprising:
 - a) examining the coefficients of a DCT block to determine an End of Block (EOB) length;
 - b) selecting an iDCT algorithm from a plurality of iDCT algorithms according to the EOB length; and
 - c) executing the selected iDCT algorithm.
2. (Previously Presented) The method of claim 1, further comprising:
generating a histogram of EOB lengths for a number of B frames corresponding to a shot.
3. (Previously Presented) The method of claim 2, wherein said iDCT algorithm is an iDCT_low algorithm available to said method and selected using an EOB histogram of the first B-frame of the shot.
4. (Previously Presented) A system for reducing iDCT execution time, said system comprising:
 - a) determination means for determining an End of Block (EOB) length in a DCT block;
 - b) selection means for selecting an iDCT algorithm from a plurality of iDCT algorithms based upon the said EOB length and using an EOB length histogram for a number of B-frames; and
 - c) execution means for executing said selected iDCT algorithm.

5. (Previously Presented) A system as recited in claim 4, [for reducing iDCT execution time, said system comprising:

a) determination means for determining the position of an End of Block (EOB) coefficient in a DCT block;

b) selection means for selecting an iDCT algorithm based upon the position of said EOB coefficient; and

c) execution means for executing said iDCT algorithm;]

wherein said iDCT algorithm is selected by creating an EOB length histogram of the first B-frame of a shot.

6. (Previously Presented) A computer program encoded on a computer readable medium containing instructions for selecting and executing inverse discrete cosine transform (iDCT) algorithms, said instructions performing the steps of:

a) examining the coefficients of a DCT block to determine an End of Block (EOB) length based upon the position of the End of Block (EOB) coefficient;

b) selecting an iDCT algorithm according to the EOB length and using an EOB length histogram for B-frames; and

c) executing said iDCT algorithm.

7. (Previously Presented) The method of claim 2 wherein said iDCT_high algorithm is based upon an EOB length of 39 or 40.

8. (Previously Presented) The method of claim 3 wherein said iDCT_low algorithm is based upon an EOB length of 14 or 25.

9. (Previously Presented) The medium of claim 6 wherein said iDCT_high algorithm is based upon an EOB length of 39 or 40.
10. (Previously Presented) The medium of claim 6 wherein said iDCT_low algorithm is based upon an EOB length of 14 or 25.
11. (Previously Presented) A system for reducing inverse discrete cosine transform (iDCT) execution time, said system comprising:
- a) a plurality of iDCT algorithms comprising an iDCT_high algorithm and an iDCT_low algorithm;
 - b) a switch for selecting a selected algorithm from said plurality of iDCT algorithms and using a histogram of an End of Block(EOB) lengths for a number of B-frames; and
 - c) a computer processor for executing said selected algorithm.
12. (Previously Presented) The system of claim 11 wherein said switch accepts as input:
- a) a block of DCT coefficients;
 - b) an End of Block address; and
 - c) a picture type bit rate.
13. (Previously Presented) The system of claim 11 wherein said plurality of iDCT algorithms further comprises:
- iDCT_Normal, iDCT_AC and iDCT_DC.
14. (Cancelled)

15. (Cancelled)
16. (Cancelled)
17. (Cancelled)
18. (Previously Presented) The method of claim 2 wherein the shot includes a sequence of frames bounded on each side by a video transition.
19. (Previously Presented) The method of claim 18 wherein the video transition includes one of a cut frame, a dissolve, or a cross-dissolve.
20. (Previously Presented) The method of claim 1 wherein the plurality of iDCT algorithms includes one of: iDCT_Normal, iDCT_AC, iDCT_high, iDCT_low and iDCT_DC.
21. (New) The method of claim 2 wherein said iDCT algorithm is an iDCT_high algorithm available to said method and selected using an EOB histogram of the first B-frame of the shot.